BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
January 23, 1963

EXAMINER HEARING

IN THE MATTER OF:

Application of Amerada Petroleum Corporation for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause seeks authority to complete its State BT "G" Well No. 2 located in Unit P, Section 27, Township 12 South, Range 33 East, Hightower Field, Lea County, New Mexico, in such a manner as to dispose of produced salt water into the Pennsylvanian formation.

Case 2735

BEFORE:

Elvis A. Utz, Examiner.

TRANSCRIPT OF HEARING

MR. UTZ: The next case is Case 2735.

MR. DURRETT: Application of Amerada Petroleum Corporation for salt water disposal, Lea County, New Mexico.

MR. KELLAHIN: Jason Kellahin, of Kellahin, Kellahin and Fox, appearing for the Applicant. We have one witness I would like to have sworn.

(Witness sworn.)

MR. UTZ: Are there any other appearances in this case? You may proceed.

A. E. SNYDER,

called as a witness, having been first duly sworn, testified as

follows:

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Will you state your name, please?

A A. E. Snyder.

Q By whom are you employed?

A Employed by Amerada Petroleum Corporation as a District Engineer, in Hobbs, New Mexico.

Q Mr. Snyder, have you appeared before the Oil Conservation Commission and made your qualifications as an engineer a matter of record?

A Yes, sir.

MR. KELLAHIN: Are the witness's qualifications acceptable to the Examiner?

MR. UTZ: Yes, sir, they are.

Q (By Mr. Kellahin) Mr. Snyder, are you familiar with the Amerada Petroleum Corporations proposal in Case Number 2735?

A Yes, sir.

Q Will you state briefly what is proposed by Amerada?

A Briefly Amerada proposes to dispose of salt water into the Pennsylvanian formation from wells producing in the Hightower Devonian and Pennsylvanian Pools in Lea County, New Mexico.

(Whereupon Applicant's Exhibit Number 1 was marked for identification.)

Q Referring to what has been marked as Exhibit Number 1,

would you identify that exhibit and state what is shown thereon?

A Exhibit Number 1 is a plat of the Hightower field in Lea County, New Mexico. The subject well of this application is Amerada's State BT "G" Number 2, located in Unit P, Section 27, Township 12 South, Range 33 East, Lea County, New Mexico. The other producing wells and the dry holes in the adjacent area are also shown on this plat.

Q Are the wells shown on the plat all producing from the formation involved in this application?

A No, sir, there is one well producing from the Devonian formation.

Q The other wells on this exhibit are Pennsylvanian wells?

A Yes, sir.

Q Does the plat also show the overriding ownership?

A Yes, sir.

(Whereupon, Applicant's Exhibit No. 2 was marked for identification.)

Q Now, directing your attention to what has been marked as Exhibit Number 2, would you identify that exhibit and discuss the information shown on that?

A Exhibit Number 2 is the same ownership with the well location; and on this plat I have imposed the structural configuration on the Pennsylvanian "XX" zone,, that is a correlation zone near the top of the Pennsylvanian. The well we are talking about is circled in red. You can readily see its structural position

with other producing wells in the pool.

Q What is the present status of this well?

A The well is presently producing. I might give you a general history of the well. It was completed in 1952 in the Pennsylvanian zone with perforations 8740 to 8772, and at that time it was acidized with 500 gallons acid and the initial potential showed 121 barrels of oil in thirteen and a half hours. By January, 1953 the well had declined considerably. It was re-acidized with 2,000 gallons acid without getting a response to it. We continued producing it. In May of 1952 it was again reacidized with 4,000 gallons of acid without getting any significant increase in production. The production in the year 1962 averaged 3.8 barrels per day. The cumulative production from the well has been about a hundred twenty one barrels of oil. It is now to the point it is uneconomical to operate. There is no stimulation treatment or anything we could do to make it into a fourth oil producing well. Bottom hole pressure is on the order from 3,000 pounds it had and is currently declined to about 700 pounds. We are producing the well by gas lift and it does require a rather large amount of gas to lift the small amount of oil and this bit of water.

Q In your opinion has this well reached its economic limit?

A Yes, sir.

Q What is the nature of the ownership of the land involved

here?

A The land is State land, which, when production ceases from this well, Amerada will lose the lease on this 320 acre State lease. In view of that we have made arrangement with the State Land Office and have bought a business lease of about, let's see, the exact acreage is 1.9976 acres around this well.

Q And that lease is for the purpose of the operation of the salt water disposal well?

A Yes, sir.

(Whereupon, Applicant's Exhibit No. 3 was marked for identification.)

Q Now, Exhibit Number 3, is that a log of the subject well?

A Yes, sir. On that log I have shown the top of the "XX" correlation zone and the perforated interval of the well, and the casing depth.

(Whereupon, Applicant's Exhibit No. 4 was marked for identification.)

Q Now, referring to what has been marked as Exhibit Number 4, would you identify that exhibit and discuss the method of the completion of this well for salt water disposal?

A It is a schematic diagram of the present condition of the well, plus the anticipated equipment that will be situated when it is converted to a salt water disposal well. The casing proposal was 13 3/8 set at 298 feet and cemented with 225 sacks cement and the cement circulated to the surface. The intermedi-

ate was 8 5/8 inch casing set at 3,818 feet with 1,500 sacks cement and the cement was pumped to the top 640 feet. The oil string, 5 ½ inch casing was set at 8,850 feet with 500 sacks of cement. The top of the cement coming about to 630 feet. When this well is converted to a salt water disposal well run a Baker type packer set immediately above the perforations with 2 7/8 inch internally coated tubing.

Q Is the fluid involved here corrosive?

A Yes, sir.

Q Will the type of tubing you are utilizing protect the well from leakage?

A Yes, sir.

Q In your opinion will the type of completion contemplated for the purpose of salt water disposal in this well fully protect any producing horizon or water zones encountered in this well bore?

A Yes, sir.

Q What volume of water will be disposed of?

A About 1,100 barrels a day, and essentially it may increase somewhat later on. Initially 1,100 barrels a day.

Q What is the source of the water?

A About 1,000 barrels will come from the one remaining Amerada Devonian "BE" 21, the other one hundred barrels comes from the remaining Pennsylvanian wells.

Q Has the amount of water being produced been increasing in recent months?

A Yes, sir. Several months ago the Devonian well started making water and it is gradually increasing.

Q Is this area located within the Lea County undergraound water basin?

A Yes, sir.

Q In your opinion will the disposal of salt water as proposed by Amerada serve to protect, particularly in the water zones, contamination in this area?

A Yes, sir.

Q Do you anticipate that the well will take water on gravity?

A We anticipate it will initially, but probably before very long it will have to be pumped. We designed the pumping equipment so that we may inject at 2,500 pounds pressure.

Q Now, this well is located in the center of the wells producing from the Pennsylvanian formation?

A Yes, sir.

Q What is the closest producing well?

A The nearest well is a diagonal offset, the Amerada Number 1, located in Unit L of Section 26.

Q Now, do you anticipate that the disposal of salt water in this zone, as proposed by Amerada, will have any adverse affect on the other producing wells in the pool?

A No, sir.

Q Were Exhibits 1 through 4 prepared by you, or under

corrosive material back in the annulus space? What would that be, oil?

A Oil or treated water, I am not sure at the present time.

Q Will you use any pressure equipment or pressure gauge at the surface to analyze this so that you will be able to detect any corrosion?

A Yes, sir, we will install a pressure gauge there.

MR. UTZ: Are there other questions?

BY MR. LONG:

Q What date did you say production ceased?

A The well is producing now. We will notify you at the time the well ceases producing. It will probably be a month or six weeks yet before we can get our equipment set.

MR. UTZ: Are there other questions? The witness may be excused.

(Witness excused.)

MR. UTZ: Are there other statements to be made in this case? The case will be taken under advisement.

STATE OF NEW MEXICO)
) ss
COUNTY OF BERNALILLO)

I, BILL LANGFORD, Court Reporter, do hereby certify that the foregoing and attached transcript of proceedings before the New Mexico Oil Conservation Commission at Santa Fe, New Mexico, is a true and correct record to the best of my knowledge, skill and ability.

Bill Langford
Court Reporter

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No 2735, heard by me on Jan. 23, 1963.

~~Examiner~~
New Mexico Oil Conservation Commission